Project Design Phase-I
Proposed Solution

Date	23 October 2023
Team ID	Team-592320
Project Name	Identifying Airline Passenger Satisfaction using Machine Learning
Maximum Marks	2 Marks

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Airline passenger satisfaction is critical to the success of the airline industry. However, accurately measuring and understanding passenger satisfaction can be challenging due to the complex and multifaceted nature of the flying experience. Traditional survey methods are often time-consuming and may not capture real-time feedback. Airlines need an efficient and predictive solution to understand and enhance passenger satisfaction.

S.No.	Parameter	Description
2.	Idea / Solution description	We propose developing a machine learning-based system to predict and identify airline passenger satisfaction. This system will analyse historical data and real-time passenger feedback to classify passengers as either satisfied or dissatisfied with their flying experience. The model will use a range of features such as airline, flight duration, cabin class, seat comfort, inflight entertainment, and onboard service to make predictions. The solution will provide actionable insights to airlines to improve their services and enhance customer satisfaction.

3.	Novelty / Uniqueness	The uniqueness of our solution lies in its predictive nature. By leveraging machine learning algorithms, we aim to go beyond mere survey data and provide real-time predictions. This approach enables airlines to address passenger dissatisfaction proactively and make data-driven improvements. Additionally, the use of a wide range of features, including factors such as flight duration and seat comfort, adds depth and accuracy to the predictions.
4.	Social Impact / Customer Satisfaction	The social impact of this solution is significant. Passengers will benefit from improved airline services, resulting in a more satisfying and stress-free travel experience. Airlines can use the insights to address specific pain points and enhance passenger satisfaction, ultimately increasing customer loyalty and positive word-of-mouth. This contributes to a better overall travel experience and the well-being of passengers. Many people choose not to fly with airlines because of the inconveniences they experience during their journeys, which makes them feel that the money they spent was not worth it. This model helps us to understand the passenger's problem. Thus, helping to boost the airline industry

5.	Business Model (Revenue Model)	Airlines can license our machine learning solution to use in their customer feedback and improvement processes. The pricing model is based on the number of passengers served and the level of customization required. We can also help airlines to interpret results and implement solution effectively.Moreover, by reducing the passenger complaints and increasing the customer loyalty , airline can potentially increase their revenue and profitability and simultaneously promoting a pleasant journey for travellers.

6.	Scalability of the Solution	The solution is highly scalable as it can be applied to airlines of all sizes and can adapt to their specific needs and data volumes. It can be used globally and integrated into existing airline systems and processes. As more data is collected and the model continues to improve, it can scale effortlessly to accommodate larger datasets and passenger bases. The scalable nature of the solution positions it for long-term growth and impact within the airline industry.